CELERY AND RADISH CULTIVAR TRIALS - 1974

MUCK CROPS BRANCH

CELERYVILLE, OHIO

E. K. Alban

Edward Postema

Department of Horticulture

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

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E. K. Alban[1] and Edward Postema[2]

Twenty cultivars or promising breeding lines of celery were compared in replicated trials (six) at the Muck Crops Branch Station in the 1974 season. Tabular data summary are included in Table 1.

Eight red and two white radish cultivars, all standard varieties, were included in a mid-summer evaluation of these cultivars at the Muck Crops Station during the 1974 season. Tabular data summary are included in Table 2.

CELERY

Cultural Information:

Seed was sown in flats in the greenhouse April 2, 1974; seedlings were transplanted to greenhouse benches April 25, 1974; and the celery was transplanted (mechanically) into the field on May 16, 1974.

Nine hundred pounds of an 0-25-25 fertilizer were applied and disced in prior to planting. Side dressing of ammonium nitrate (100 lb/A) was made twice during the two to four weeks after planting.

Randomized replicated plots consisted of paired rows spaced 34 inches, with 40 inches between the paired rows for equipment clearance. Plants were spaced 6.5 inches in the row, with 41 plants per 23-foot plot, and replicated six times for each cultivar.

Dyrene was applied at 7 to 10 day intervals for disease control. Malathion for insect control was added to the Dyrene spray at approximately 14 to 20 day intervals.

Rainfall was adequate in the early season, but somewhat deficient in the latter part of the season. Water was never a limiting factor, since overhead irrigation was available and used as needed.

Harvesting and recording of pertinent data were accomplished during the period of August 19-20, 1974. Total yield, stalk size, trim loss, length and number of petioles are included in Table 1.

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[1] Professor of Horticulture, The Ohio Agricultural Research and Development Center and The Ohio State University.

[2] Manager, Muck Crops Branch, Ohio Agricultural Research and Development Center.

Seed Sources:

The following include abbreviations used in Table 1, as well as the seed companies involved and their addresses. We would like to acknowledge that each seed company involved donated the seed for these celery cultivar studies.

A-1 Abbott & Cobb, 4744-46 Frankford Ave., Philadelphia, Pa. 19124

F-2 Ferry Morse Seed Co., Box 100, Mountainview, Calif. 94040

K-3 Keystone Seed Co., Box 1438, Hollister, Calif. 95023

RADISH

Cultural Information:

Eight red cultivars and two white cultivars of radish were direct-seeded into a muck soil where a previous leaf lettuce crop had been harvested. No additional fertilizer was added. The seeding date was July 2, 1974.

Tandomized replicated plots (four) were utilized in this study. Three row plots, seventy feet in length, were used for each replica. Data were obtained only from the center row of each of these replicated plots. Row spacing was 14-inches between plot rows, with 28-inch spacing between plots.

Rainfall during the period of growing was 0.57-inches and no supplemental irrigation was used. Additional irrigation might have reduced the number of elongated red cultivars included in the study.

Red cultivars were harvested on July 23, 1974. White cultivars were harvested on July 24, 1974.

Seed Sources:

The following include abbreviations used in Table 2, as well as the seed companies involved and their addresses. All radish seed was purchased in the open market.

H-1 Joseph Harris Seed Co., Rochester, N. Y. 14624

S-1 Seedway, Inc., Hall, N. Y. 14463

TABLE 1.--Celery Varieties 1974

Rank	Variety and Source		Ave. Wt., Per Large Stalk Lb.	Ave. Yield Per Plot: Large Stalks Lb.	Ave. Yield Per Plot: Small Stalks Lb.	Ave. Yield Per Plot: Marketables Lb.	Petiole Count 4" Above Butt No.	Petiole Length Butt to 1st Node In.	Petiole Overall Length Lb.	Trim Loss %
1	Tall Utah 52-70	F-2	2.8	92.0	0	92.0	12.7	10.0	27.8	39.3
2	Earlibelle	K-3	2.6	89.4	0.4	89.8	13.1	9.3	25.9	39.1
3	Florida 683	K-3	2.8	86.7	0.7	88.4	14.1	9.6	27.2	34.5
4	Tender Crisp	F-2	2.6	84.8	0.3	85.1	12.1	11.4	27.9	37.1
5	Eo - 207	F-2	2.5	84.8	0.5	85.3	13.3	12.8	29.5	37.7
6	8191	F-2	2.5	82.7	0.4	83.1	12.7	10.0	27.8	37.5
7	Florida	F-2	2.6	82.3	---	82.3	12.3	9.9	27.1	35.2
8	8190	F-2	2.8	82.2	0.3	82.5	14.6	11.2	28.8	38.4
9	3036	F-2	2.6	80.7	---	80.7	12.0	10.2	27.5	40.6
10	15 C-9	F-2	2.6	79.9	---	79.9	12.8	11.2	28.2	35.1
11	Sure-Pak	F-2	2.5	77.0	---	77.0	12.7	12.3	30.0	41.7
12	52-70 R	F-2	2.5	75.4	---	75.4	12.0	10.4	26.8	39.9
13	Beacon	K-3	2.4	74.5	0.3	74.8	12.4	9.0	24.6	34.9
14	3037	F-2	2.6	73.0	0.3	73.3	11.9	10.3	26.8	43.1
15	Imp 52-70	A-1	2.5	71.7	---	71.7	12.0	9.9	27.0	41.2
16	June Bell	K-3	2.4	69.3	---	69.3	12.3	10.2	27.3	39.2
17	Florida 213	K-3	2.4	67.4	---	67.4	11.3	9.8	26.7	34.6
18	52-75	K-3	2.2	62.6	0.9	63.5	10.9	8.6	22.7	38.4
19	Florimart #19	K-3	2.0	62.2	---	62.2	10.0	13.0	22.7	45.5
20	Florida	K-3	2.4	60.1	---	60.1	12.3	10.7	26.8	34.8

No Significant Differences at 5% Level.

TABLE 2.--Radish Variety Studies - 1974

Varieties	Seed Source	Yield lb/a Plot [a]	Number of roots per 2 lb [b]	Uniformity color [c]	Uniformity shape [d]	Top Growth [e]	Remarks
			RED VARIETIES				
Scarlet Knight	H-1	14.2	104.0	5.0	5.0	M	Excellent Globe Shape
Red Bo	H-1	14.2	88.8	4.5	4.0	M	Excellent Globe Shape
Champion	S-2	14.8	60.5	4.0	3.5	L	Elongated Globe
Cavelbrando	H-1	14.0	78.0	4.5	4.0	M	Elongated Globe
Cherry Belle	H-1	11.5	80.5	5.0	5.0	S	Mostly Globe Shape
Champion	H-1	13.8	104.0	4.0	3.0	M	Elongated Globe
Comet	S-2	11.0	55.5	4.0	4.0	M	Egg-shaped
Early Scarlet Globe	S-2	6.3	74.0	4.0	3.0	S	Excellent Globe Shape
LSD 5.0%		3.8	32.4	---	1.1	-	
			WHITE VARIETIES				
Icicle Short Top	H-1	19.2	69.8	---	4.5	L	Very uniform roots
Icicle	S-2	15.9	38.3	---	3.5	M	Variable size roots

a. Yield of topped roots, ave/70 feet of row, four replications.
b. Number of roots per 2 lb sample, average of four replications.
c. & d. Top uniformity or color rating 5, with 1 as poorest rating.
e. M = medium top; L = long top-growth; and S = short-top growth.

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